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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,287	07/29/2003	Charles David Young	02CR145/KE	5713

7590 06/13/2007

Rockwell Collins, Inc.
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EXAMINER	
CHAN, SAI MING	
ART UNIT	**PAPER NUMBER**
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/629,287	YOUNG ET AL.	
	Examiner	Art Unit	
	Sai-Ming Chan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/29/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on July 29, 2003 has been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 5-7, 9, 12 ,14 and 19 are rejected under 35 U.S.C. 102(e) as being unpatentable over **Leach, JR. et al. (U.S. Patent Publication # 20020089994).**

Consider **claims 1** and **8,** Leach, JR. et al. clearly disclose and show a method of retransmitting a data cell, comprising:

providing a transmit queue (fig. 5a (305); paragraph 59, lines 1-3 (FIFO queue)) having a head (fig. 5a (F1)) and a tail (fig. 5a (F6));

transmitting a first data cell from the head of the transmit queue (paragraph 67, lines lines 1-7);

providing a retransmit queue (fig. 3 (305 (QP)); paragraph 57, lines 18-26 (queue with persistent frames), paragraph 18, lines 1-11 (repetitive transmission for persistent frames)) having a head and a tail;

inserting the first data cell at the tail of the retransmit queue (fig. 5a (305); paragraph 59, lines 1-3 (FIFO queue); paragraph 18, lines 1-11 (repetitive transmission of FIFO queue elements)); and

retransmitting a second data cell at the head of the retransmit queue (fig. 5a (305); paragraph 59, lines 1-3 (FIFO queue); paragraph 18, lines 1-11(dequeue and enqueue of FIFO queue elements)).

Consider **claims 2, 9** and **16,** and **as applied to claims 1, 8 and 15 above,** respectively, Leach, JR. et al. clearly disclose and show a method, further comprising:

marking the first data cell (paragraph 18 (mark as persistent for requeuing)) as requiring receive acknowledgement (paragraph 16, lines 17-23 (needs acknowledgment to stop retransmission)).

Consider **claims 5, 12 and 19,** and **as applied to claims 1, 8 and 14 above,** respectively, Leach, JR. et al. clearly disclose and show a method, further comprising:

reinserting the second data cell at the tail of the retransmit queue (fig. 5a (305); paragraph 59, lines 1-3 (FIFO queue); paragraph 18, lines 1-11).

Consider **claim 7,** and **as applied to claim 1 above,** Leach, JR. et al. clearly disclose and show the method, further comprising:

reinserting the first data cell at the tail of the recirculation queue after the first data cell has been transmitted from the head of the retransmission queue (fig. 5a (305); paragraph 59, lines 1-3 (FIFO queue); paragraph 18, lines 1-11) .

Consider **claims 14,** and **as applied to claim 8 above,** Leach, JR. et al. clearly disclose and show the communications system, further comprising:

a means for reinserting the first data cell at the tail of the recirculation queue after the first data cell has been transmitted from the head of the retransmission queue (fig. 5a (305); paragraph 59, lines 1-3 (FIFO queue); paragraph 18, lines 1-11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Leach, JR. et al. (U.S. Patent Publication # 20020089994),** in view of **Kawabata et al. (U.S. Patent Publication 20020114292).**

Consider **claim 15,** Leach, JR. et al. clearly disclose and show a communications system comprising:

The data cells being transmitted from a transmission queue (fig. 5a (305); paragraph 59, lines 1-3 (FIFO queue)) and a retransmission queue (fig. 3 (305 (QP)); paragraph 57, lines 18-26 (queue with persistent frames), paragraph 18, lines 1-11 (repetitive transmission for persistent frames)).

Wherein cells transmitted from the transmission queue are selectively placed sequentially (paragraph 18, lines 1-11(dequeue and enqueue of FIFO queue elements)) into the retransmission queue for later transmission.

However, Leach, JR. et al. do not specifically disclose TDMA for the system.

Furthermore, Kawabata et al. clearly disclose:

a plurality of transceiver nodes configured to utilize a time division multiple access (fig. 1(a-d) terminal and (14 & 15) controllers), paragraph 72 (14 & 15(TDMA controllers) – TDMA network with polarity of terminals)) structure to communicate between the transceiver nodes; and

the time division multiple access structure including a plurality of time slots (paragraph 77, lines 1-12) during which the transceiver nodes are configured to communicate data cells.

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a retransmission method, as taught by Leach, JR, et al. and apply TDMA to the nodes and network, as taught by Kadambi et al., so that the control of communication can be improved.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Leach, JR. et al. (U.S. Patent Publication # 20020089994),** in view of **Kawabata et al. (U.S. Patent Publication 20020114292),** and further in view of **Kadambi et al. (U.S. Patent 7145869).**

Consider **claim 20,** and **as applied to claim 15 above,** Leach, JR. et al., as modified by Kawabata et al., clearly disclose and show the system as described. However, Leach, JR. et al., as modified by Kawabata et al., do not specifically disclose a plurality of cells. In addition, Kadambi et al. clearly disclose each packet includes a plurality of cells (column 7, lines 23-32 (series of cells)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a retransmission method, as taught by Leach, JR, et al. and demonstrate series of cells in a packet, as taught by Kadambi et al., so that the control of communication can be improved.

Claims 3-4, 6, 10-11, 13 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Leach, JR. et al. (U.S. Patent Publication # 20020089994)** in view of **Chou et al. (U.S. Patent #7016304).**

Consider **claims 3, 10 and 17,** and **as applied to claims 1, 8 and 15 above, respectively,** Leach, JR. et al. clearly disclose and show the method as described. However, Leach, JR. et al. do not disclose other ways in which transmission retry could be stopped. In the same field of endeavor, Chou et al. clearly shows the method, further comprising:

determining if the second data cell has timed out (column 4, lines 46-53 (timeout threshold)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a retransmission method, as taught by Leach, JR, et al. and means to stop transmission retry, as taught by Chou et al., so that the control of communication can be improved.

Consider **claims 4, 11 and 18,** and **as applied to claims 1, 8 and 15 above,** respectively, Leach, JR. et al. clearly disclose and show the method as described. However, Leach, JR. et al. do not disclose other ways in which transmission retry could be stopped. In the same field of endeavor, Chou et al. clearly shows the method, further

comprising:

determining if the second data cell has exceeded its predetermined number of retransmissions (column 4, lines 46-53 (retrytimer threshold)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a retransmission method, as taught by Leach, JR, et al. and means to stop transmission retry, as taught by Chou et al., so that the control of communication can be improved.

Consider **claims 6 and 13,** and **as applied to claims 1 and 8 above,** respectively, Leach, JR. et al. clearly disclose and show the method as described. However, Leach, JR. et al. do not disclose other ways in which transmission retry could be stopped. In the same field of endeavor, Chou et al. clearly shows the method, further comprising:

discarding the second data cell because it has exceeded its predetermined number of retransmissions or it has timed out (column 4, lines 46-53 (retrytimer threshold and timeout threshold)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a retransmission method, as taught by Leach, JR, et al. and show other means of stopping transmission retry, as taught by Chou et al., so that the control of communication can be improved.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Sai-Ming Chan whose telephone number is (571) 270-1769. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Seema S. Rao 6/11/07
SEEMA S. RAO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Sai-Ming Chan
S.C./ sc

June 8, 2007